

# Oxygen & Oxides

## Question Paper

Level	GCSE
Subject	Chemistry
Exam Board	Edexcel IGCSE
Module	Single Award (Paper 2C)
Topic	Chemistry of the Elements
Sub-Topic	Oxygen & Oxides
Booklet	Question Paper

**Time Allowed:** 19 minutes

**Score:** /16

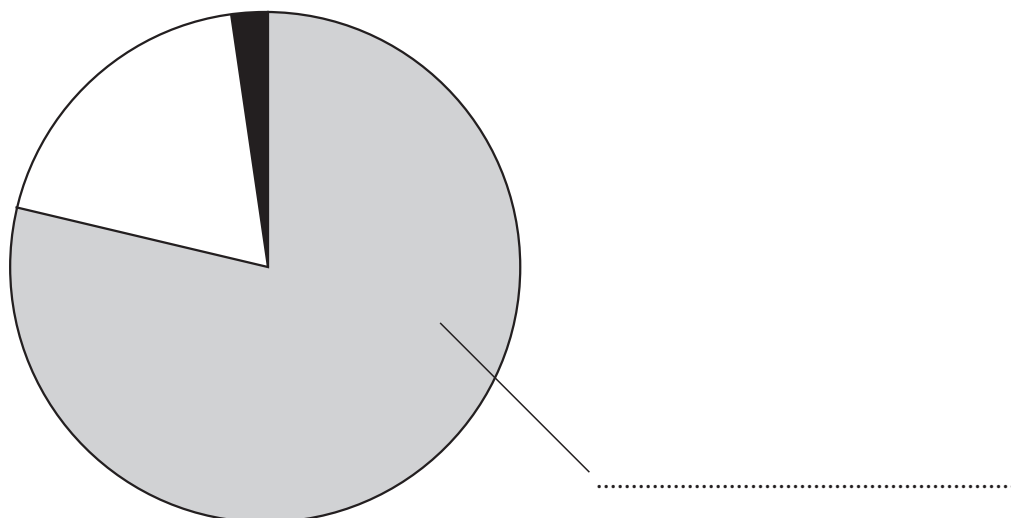
**Percentage:** /100

**Grade Boundaries:**

A*	A	B	C	D	E	U
>85%	75%	70%	60%	55%	50%	<50%

1 Many chemical reactions occur in the atmosphere.

(a) The pie chart shows the relative amounts of some gases in air.



(i) Label the pie chart with the name of the gas that makes up most of the air. (1)

(ii) What is the approximate percentage of oxygen in air?

Place a cross (☒) in one box.

(1)

- 1
- 20
- 25
- 78

(iii) Use words from the box to complete the sentences about some of the other gases in air.

Each word may be used once, more than once or not at all.

(2)

<b>diatomic</b>	<b>dense</b>	<b>neon</b>	<b>nitrogen</b>	<b>unreactive</b>	<b>water</b>
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One of the gases in air is argon. It is called a noble gas because it is very .....

The percentage of ..... vapour in air varies with the weather.

- (b) Rain water is naturally slightly acidic because carbon dioxide dissolves in it.  
The word equation for the reaction that occurs is:



Acid rain is more acidic because pollutant gases in the atmosphere also dissolve in water.

- (i) Identify the acid formed when sulfur dioxide reacts with water.

(1)

- (ii) Identify another pollutant gas that forms acid rain.

(1)

- (iii) State **two** problems caused by acid rain.

(2)

1

2

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**(Total for Question 1 = 8 marks)**

2. The photograph shows an aeroplane that has a rocket motor.



(a) One of the tanks on the aeroplane contains liquid oxygen.

(i) Complete the diagram to show the arrangement of the particles in a liquid. One particle has been drawn for you.

(2)



(ii) Much more oxygen can be stored in the tank when the oxygen is a liquid rather than a gas.

Give a reason for this in terms of the arrangement of the particles.

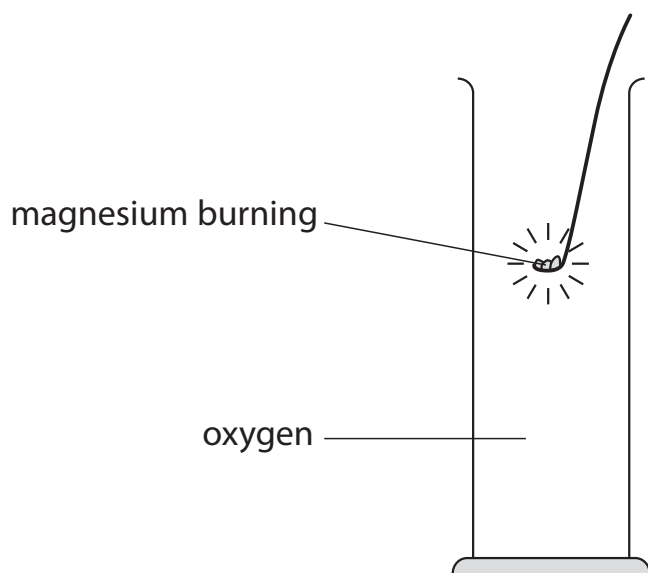
(1)

.....

.....

.....

(b) Magnesium burns in oxygen to form magnesium oxide.



(i) State **two** observations that can be made when magnesium burns in oxygen.

(2)

1 .....

2 .....

(ii) Give the formula of magnesium oxide.

(1)

.....

(c) A small amount of magnesium oxide is dissolved in water. When universal indicator is added to this solution, the indicator turns blue.

(i) What does the observation with the indicator show about magnesium oxide?

(1)

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(ii) Identify the ion that is responsible for the universal indicator turning blue.

(1)

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**(Total for Question 2 = 8 marks)**